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The Risk Approach into Systems Life

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Abstract
The increasing complexity of modern technical equipment and the systemic failures, often elude traditional testing and assessment. It is necessary to know how well particular technical systems perform in relieving certain conditions, and which characteristics are associated with better and worse performance during the life cycle. Should know why and how systems fail. The failure is related to a specific level of associated operational risk, which is concerned with the uncertainty inherent in the execution of a specific function. It is impractical to expect absolute safety in the use of technical systems. Generally it is accepted that no system can be completely fail-safe and any associated risk should be reduced to an acceptable level. To reach this objective during the life cycle of systems it is necessary to analyses the harms (physical injury and/or damage to health or property), hazards (potential sources of harm) and risks (the probable rate of occurrence of the harm and the degree of severity of the harm) associated with its use. The realistic expectation must be that risks are kept as low as possible, taking into account the cost which would be incurred in further reducing risk and the benefits resulting from their use of the product. The needs of this kind of activities lead to the development of a number of standards that provide guidance and advice on the best way to manage the risks.

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